TERRESTRIAL ISOPODS COLLECTED IN COSTA RICA BY MR. PICADO, WITH THE DESCRIPTION OF A NEW GENUS AND SPECIES.

By Harriet Richardson,

Collaborator, Division of Marine Invertebrates, United States National Museum.

Some terrestrial isopods collected in Costa Rica by Mr. C. Picado were sent by Mr. J. F. Tristan to the United States National Museum for determination. They were found on epiphytic plants of the family Bromeliaceæ ("wild pines") and were mostly collected at an altitude of 2,000–2,500 meters. Among them are some specimens representing a new genus of Oniscidæ.

Other terrestrial isopods collected in Costa Rica by Mr. J. F. Tristan were also sent to the United States National Museum about the same time. These were collected in the Bromelias in the old crater of "Reventado" near the Volcano Irazu. Mr. Tristan writes that the

old crater is covered with forest.

Family ONISCIDÆ.

PENTONISCUS, new genus.

Body with the abdomen abruptly narrower than the thorax. Head with median and antero-lateral lobes small.

Second antennæ with a flagellum composed of five articles, the

third and fourth rather indistinctly separated.

Mouth parts as in the other genera referred to this family. Inner lamella of the second maxilla furnished with two plumose setæ. Mandibles with molar expansion obsolete, and replaced by a recurved seta; cutting edge formed of three blunt teeth. Maxillipeds with palp composed of three articles, the last very narrow and elongate; masticatory lobe short and truncate at tip.

Terminal segment of abdomen triangular, with apex obtuse. Uropods of a structure similar to those in the other genera in the

family.

The type of the genus is *Pentoniscus pruinosus*, new species.

This genus differs from all the known genera of Oniscidæ in having the flagellum of the second antennæ composed of five articles.

PENTONISCUS PRUINOSUS, new species.

Body oblong-ovate, 4 mm. long and 1½ mm. wide. Color reddishbrown with wavy lines of yellow on either side of the median line.

Head wider than long, with the front not margined. Anterolateral lobes small; front slightly produced in the middle in a widely rounded lobe. Eyes very small, black, and situated about the middle of the lateral margin. The second antennæ have the first article short, the second and third subequal, and each a little longer



Fig. 1.—Pentoniscus pruinosus,

than the first; the fourth is one and a half times longer than the third; the fifth is a little longer than the fourth. The flagellum consists of five articles, the third and fourth being rather indistinctly separated, and a long terminal spine equal in length to the flagellum.

The first segment of the thorax is a little longer

than any of the following segments, which are subequal. The post-lateral angles of the last three segments are produced backward; those



Fig. 2.—Pentoniscus pruinosus. Second antennæ.

of the first four segments are rounded.

The abdomen is abruptly narrower than the thorax. The lateral parts of the first two segments are concealed by the seventh thoracic



FIG. 3.—PENTON-ISCUS PRUINO-SUS. MAXILLI-PED.



FIG. 4.—PENTON-ISCUS PRUINO-SUS. INNER LA-MELLA OF SEC-OND MAXILLA.



FIG. 5.—PENTON-ISCUS PRUINO-SUS. MANDI-

segment. The post-lateral angles of the three following segments are produced backward in very acute angles. The first segment is a little shorter than any of the others, which are subequal. The sixth or terminal segment is triangular, with the apex rounded. The peduncle of the uropoda extends almost to the extremity of the terminal

abdominal segment. The branches are styliform, the inner being the shorter and about equal in length to the terminal abdominal segment; the outer branch is about one and a third times as long as the inner.

About 11 specimens were collected at Estrella, at an altitude of 2,000 meters, by Mr. Picado.

Locality 7.—One specimen at La Mica, in the mountains southwest of Orosé. Collected by Mr. Picado.

Locality 2.—Fourteen specimens at La Estrella, in the Bromelias, several meters from the ground. Collected by Mr. Picado.

Locality 6.—About 16 specimens at La Mica, in the mountains southwest of Orosé. Collected by Mr. Picado.

Locality 4.—About 30 specimens at Pitahaya (south of Cartago). Collected by Mr. Picado.

In color and color markings the new species is similar to *Porcellionides pruinosus* (Brandt).

Type.—Cat. No. 43771, U.S.N.M.

PHILOSCIA MUSCORUM (Scopoli),

Locality 3.—La Pitahaya (south of Cartago). (Color pattern typical.) Collected by Mr. Picado.

Locality 1.—La Estrella, in Bromelias, several meters from the ground. Collected by Mr. Picado. The color pattern is somewhat different in these specimens, there being a double series of light patches on each side of the mesosome, one series at the base of the side plates and the other or the outer side of the series of dark patches. The median dark band also has light patches.

Locality 5.—La Mica, mountains southwest of Orosé. (About the same as No. 1.) Collected by Mr. Picado.

Locality 6.—La Mica, mountains southwest of Orosé. The dark patches are almost entirely obliterated by the presence of the light patches. Collected by Mr. Picado.

Locality 2.—(Same as locality 1.) In some specimens the color pattern is the same as No. 1; in others the same as No. 6. Collected by Mr. Picado.

Locality.—Reventado. Collected by Mr. Tristan. In some specimens the color pattern is the same as No. 1; in others it is the same as No. 6; in others it is like No. 1, but with a transverse row of light spots on the posterior margin of each of the thoracic segments.

In some of the smaller specimens the first article of the flagellum of the second antennæ is not much longer than either of the other two articles.

In the male specimens the first two pairs of legs have the propodus somewhat more inflated than in the specimens of *Philoscia muscorum* from North America with which I have compared them.

The following were also collected by Mr. Picado:

Locality 8.—The specimens are like those from locality 3. Color pattern typical.

Locality 11.—Orosé, 1,200 meters altitude, July. The specimens

are more like those from locality 8.

Locality.—Planton, 2,500 meters altitude, May. Similar to specimens from locality No. 1.

Locality.—La Estrella, 2,000 meters altitude, May. In one specimen the color pattern is typical. In two it is like those from locality No. 1. In two others it is still different, being more like No. 6.

ALLONISCUS, species?

Locality 4.—One imperfect specimen was obtained at Pitahaya, Costa Rica. Collected by Mr. Picado.